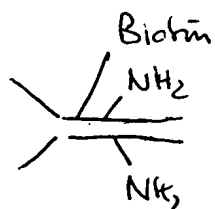




Immobilization (Examples 3 + 10)



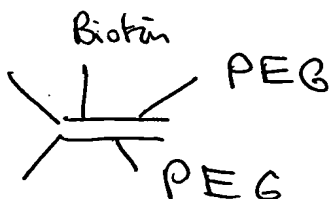
biotinylated antibody

+

PEG - OSu

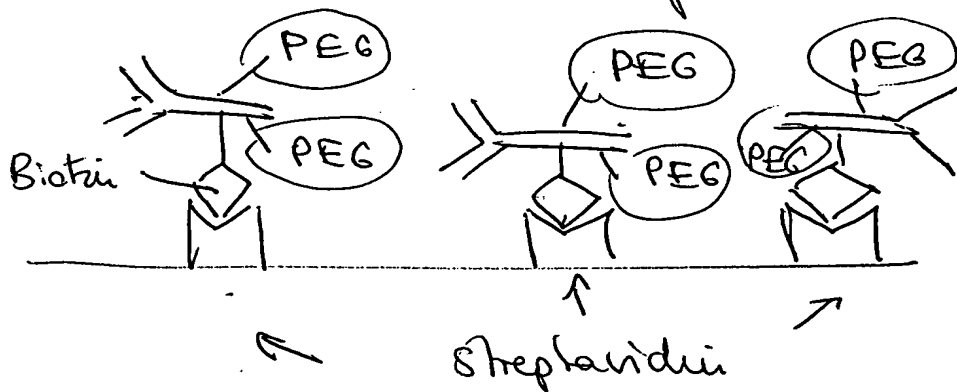
monofunctionalized
PEG - Derivative

reaction
↓



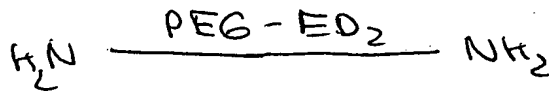
PEG-conjugate of biotinylated antibody

immobilization
on Streptavidin-surface
↓



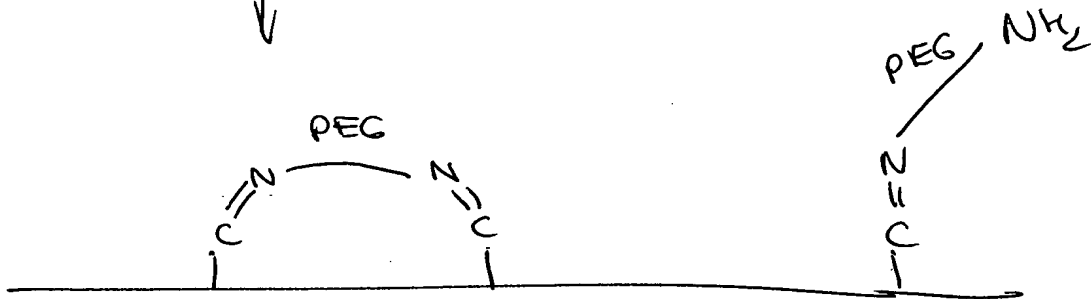
resulting product: PEG protects antibody
from unspecific interactions;
no undesired side-reactions and
byproducts

II) Prior art (Herron)



bifunctional PEG derivative

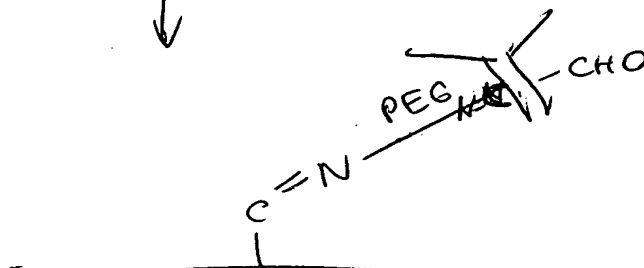
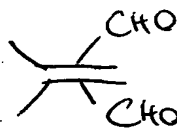
immobilization on CHO-modified surface



↑
undesired by-product
both amino groups
react with surface;
no antibody binding
possible

↑
desired product
one free functionality
for antibody
binding

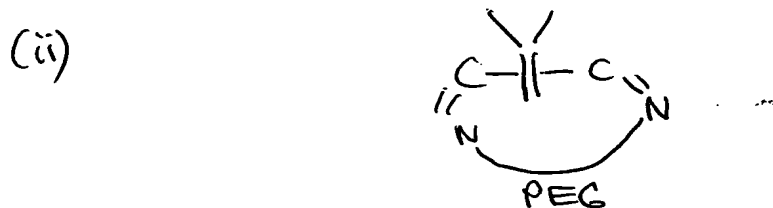
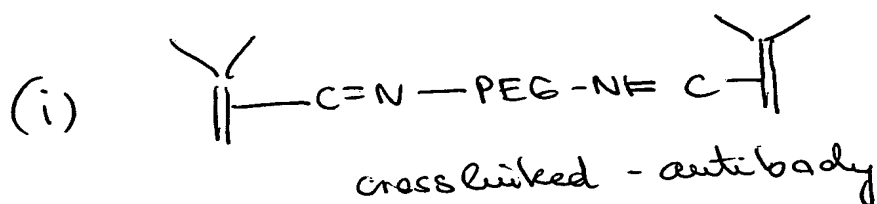
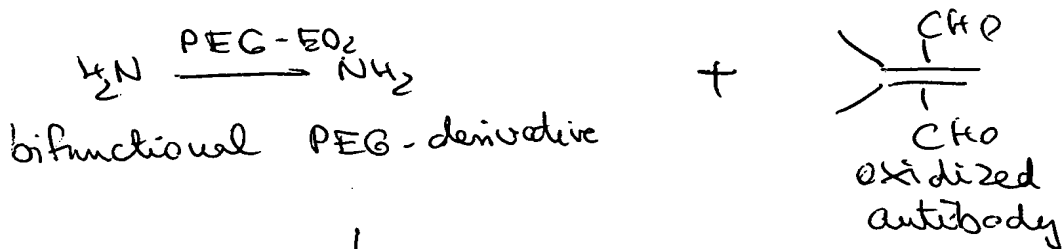
addition of oxidized antibody



resulting product: PEG acts as spacer for binding to surface; no protection from unspecific interactions e.g. with sample components

(11)

Preformation of PEG-antibody conjugate is not feasible according to the teachings of Herrou



intramolecular reaction product